

## PATENT COOPERATION TREATY

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

REC'D 09 JUN 2004

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Applicant's or agent's file reference 03-005-003	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/CA 03/00981	International filing date (day/month/year) 27.06.2003	Priority date (day/month/year) 28.06.2002
International Patent Classification (IPC) or both national classification and IPC B21C51/00		
Applicant WEATHERFORD CANADA PARTNERSHIP et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
  
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
 

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.
  
- 3.. This report contains indications relating to the following items:
  - I  Basis of the opinion
  - II  Priority
  - III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV  Lack of unity of invention
  - V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI  Certain documents cited
  - VII  Certain defects in the international application
  - VIII  Certain observations on the international application

Date of submission of the demand  23.01.2004	Date of completion of this report  08.06.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Rechler, W Telephone No. +49 89 2399-2354



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/CA 03/00981

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-13 as originally filed

**Claims, Numbers**

1-21 as originally filed

**Drawings, Sheets**

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).  
*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*
6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1 - 21
	No: Claims	
Inventive step (IS)	Yes: Claims	1 - 21
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1 - 21
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/CA03/00981

**Re Item V:**

1. There is no particular relevant prior art document available. The state of the art is extensively discussed on pages 1 - 3 of the description. The documents cited in the search report do not go beyond what is already acknowledged in the description.
2. The problem to be solved by the present invention was to improve the known methods of manufacturing continuous sucker rods with regard to reduced investment in equipment and manpower without sacrificing essential properties required to make the rod suitable for the specified conditions.

This problem is solved by the combination of features set out in the independent claims 1 and 14, especially by the selection of a plurality of input coils having the same properties and each input coil having two free ends, fusing adjacent free ends of adjacent input coils, and treating each of the heat-affected zones.

3. The present invention shall be considered to be new because no cited prior art document discloses all features of independent claim 1 or 14 in combination.
4. The cited documents do not disclose the essential subject matter concerning the selection of a plurality of input coils having the same properties and each input coil having two free ends, fusing adjacent free ends of adjacent input coils, and treating each of the heat-affected zones.

Document US-A-3 923 469 (X) discloses the manufacture of one single big coil of sucker rod with the disadvantages as set out on page 3, lines 15 - 28, of the description. Document US-B-6 481 082 (P,X) corresponds to document CA-A-2 317 291, which is discussed on page 3, lines 29 - 32 of the description.

The available prior art documents cannot give the skilled person any lead to select a plurality of input coils having the same properties and each input coil having two free ends, fusing adjacent free ends of adjacent input coils, and treating only the heat-affected zones, thereby combining all features defining the invention according to independent claim 1 or 14.

5. The invention shall be considered as susceptible of industrial application because it

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can be made or used in the mining industry.

6. Claims 2 - 13 and 15 - 21 are dependent on claim 1 or 14, respectively, and as such also meet the requirements of the PCT with respect to novelty and inventive step.
7. The one-part form of the independent claims is admissible in the present case due to the complex and sophisticated cooperation of the numerous features defining the invention, in particular as no really pertinent document is available.

**Further Remarks:**

1. The units of measure employed throughout the application, in particular on pages 1, 3, 9, 10 and 13 are not additionally expressed in terms of the units stipulated by Rule 10.1 (a)PCT.
2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2 (b) PCT).
3. Claim 14 comprises all the features of claim 1 and is therefore not appropriately formulated as a claim dependent on the latter (Rule 6.4 PCT).